REMARKS

The present amendment is submitted in an earnest effort to advance the case to issue without delay.

Claim 1 has been amended by incorporating therein the limitations of original claim 2. The latter claim has been canceled. This is a mere consolidation of claims and for this reason the Examiner is requested to enter this amendment for purposes of eventual appeal.

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as unpatentable over Jokura et al. (U.S. Patent 5,641,495). Applicant traverses this rejection.

Applicant sought to solve the problem of discoloration in cosmetic compositions containing sunscreen agents. These agents are not always sufficiently stable in storage. Breakdown will degrade the UV protectant properties of the sunscreen agents. Applicant has solved this problem through use of malonate salts.

By contrast, Jokura et al. is focused upon achieving moisturization. There is no suggestion that the dicarboxylic acids implicated in achieving this moisturization would have any effectiveness at stabilizing sunscreen agents. Faced with a totally different problem, the skilled chemist would not have selected dicarboxylic acids, and most especially not malonic acid salts as stabilization actives.

In the Office Action of March 8, 2006, the Examiner has identified Example 3 as highly pertinent. Example 3 is titled "Sunscreen Milky Lotion With Moisturizing Effect". The formula under this Example includes 4-tert-butyl-4-methoxybenzoylmethane (sunscreen) and among other ingredients fumaric acid and sodium fumarate. The

Examiner opines that one would be motivated to utilize malonic acid salts in place of the exemplified sodium fumarate (fumaric acid salt). From this it is concluded that selection of malonate salt is considered prima facie obvious.

Applicant respectfully differs from this opinion. The skilled chemist faced with the problem of stabilizing a sunscreen agent learns nothing from Example 3. Jokura et al. presents the dicarboxylic acids as moisturizing agents. Example 3 includes in its title "Moisturizing Effect". There simply is no teaching, motivation or suggestion that sunscreen agents can be stabilized by dicarboxylic acids, much less malonic acid salts.

Indeed, not all dicarboxylic acids or their salts are effective at stabilization. Applicant claims the malonates as solving the stability problem. The broad category of "dicarboxylic acids" or their salts are neither presently claimed nor expected to have stabilization properties.

Amended claim 1 now further specifies that the salt of malonic acid is present as the half neutralized and fully neutralized acid in a molar ratio ranging from about 1000:1 to about 1:1000. In other words, the malonate is present as a mono- and di- amine salt mixture.

Jokura et al. discloses the unneutralized acid (component B) and the partially neutralized acid (component C). The free acid can only co-exist with a partially neutralized salt because of pKa considerations. There is thus no disclosure of a fully neutralized malonic acid (i.e. formula II).

The Examiner has highlighted the reference as teaching a molar ratio of dicarboxylic acid to dicarboxylic acid salt as being from 1:9 to 9:1. Attention was drawn to column 3, lines 35-60. This ratio is different from that presently claimed. Jokura et al. has a ratio of free acid to neutralized acid. By contrast, applicant claims a ratio of mono to di-neutralized (i.e. half to fully neutralized) malonic acid. The ratio does not involve free acid.

The Examiner has argued that "the dicarboxylic acid salts and the composition of Jokura et al. must comprise a mixture of both fully neutralized and half neutralized acid, as the addition of alkali to the acid will result in a composition having some content of both the fully and partially neutralized acid". See page 5, last paragraph, of the September 9, 2005 Office Action.

Addition of alkali to the free malonic acid would achieve mixtures of free and mono-salts. There would be no di-salt (fully neutralized) malonate present in a system that also included totally non-neutralized ("free") malonic acid. All three species, i.e. free, mono-salt (half neutralized) and di-salt (fully neutralized), could not coexist together. Yet the reference requires the presence of free acid, component B. Since the free acid must be present, the fully neutralized salt of that free acid could not coexist therewith. The pKa of malonic acid would not permit the presence of all three species. Thus, there is a fundamental inconsistency in Jokura et al. If the skilled chemist accepts the necessity for a free acid, then the di-salt of malonic could not be present. Jokura et al. lacks the claimed di-salt.

Another argument presented by the Examiner was that the reference teaches regulating the pH value between 3 and 10. From this it was reasoned that one would have been motivated to manipulate the ratio of the salt to acid since partial or full neutralization of the acid by the salt adjusts the pH of the composition. For instance,

Jokura was said to teaching the importance of avoiding skin irritation due to the acid; thus the pH must be above 3 and below 10.

Applicant believes the Examiner's view is misguided. The problem with the pH argument is that Jokura et al. require the presence of free dicarboxylic acid. There clearly is a tension between the Jokura et al. requirement of a substantial free acid presence and the recitation of the pH rainbow. Those skilled in the art reading the reference would focus upon the requirement of a free dicarboxylic acid. The latter is mentioned in the Abstract and the independent claim 1. The pH range occurs in neither the abstract nor the main independent claim. As explained *vide supra*, any neutralization which attempts to maintain free acid will not achieve the presence of a di-neutralized salt form. Only the free acid and the mono-salt can be there present in equilibrium. The skilled chemist being taught by the reference to maintain free dicarboxylic acid will only neutralize sufficient to maintain that acid and thereby not achieve the di-salt.

In summary, the reference provides no motivation leading a skilled chemist to resolve the problem of discoloration caused by sunscreen agents in cosmetic compositions. Jokura et al. is all about moisturization. The dicarboxylic acids mentioned therein at best can be said to operate as moisturizers; no other function is indicated. Secondly, Jokura et al. fails to disclose the amine malonate salt as being a mixture of di- and mono- salts. Applicant has outlined that any motivation in adjusting pH would be circumscribed by insuring the presence of substantial amounts of free acid. There could be no combination of mono- and di- salt unless all of the free acid were neutralized. The skilled chemist would be careful with the pH factor. Finally, the Examiner has extrapolated motivation to use a mixed di- and mono- amine type malonate from a reference which does not specifically mention this combination of salt,

much less provide any specific example. Based on these considerations, the reference does not present a *prima facie* case of obviousness.

Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Jokura et al. (U.S. Patent 5,641,495) in view of Takada (JP 61/215318). Applicant traverses this rejection.

Jokura et al. formulate ingredients to achieve moisturization. Dicarboxylic acids to the extent that any function is disclosed, could only be described as performing a moisturization function. The reference is not concerned with solving discoloration arising from sunscreens. This reference also fails to disclose amine salts of malonic acid which are combinations of di- and mono- salts.

Takada does face a similar problem to that of applicant. Discoloration of the sunscreen composition is prevented through use of organic acids and/or their salts. These organic acids/salts can be monocarboxylic or dicarboxylic. Reported examples of the former include lactic acid, butyric acid, formic acid, acetic acid and propionic acid. The latter are exemplified by citric acid, tartaric acid, oxalic acid and malonic acid. Indeed, there is only a single mention of "malonic acid". See the translation at page 2, line 28.

Unlike the present claims, Takada does not disclose amine cationic counterions of malonic acid. No malonate salt whatsoever is described. To the extent that Jokura et al. references amine counterions, there would be no motivation to utilize these in Takada. The Jokura et al. document shows nothing special whatsoever about amine cationic counterions. The Examples all use sodium or potassium salts (and also the free acid). Yet even if the skilled chemist were to consider the amine cationic counter

ions, Jokura et al. at best would suggest moisturization properties rather than color stabilization effectiveness. These two references do not complement each other.

A combination of Jokura et al. in view of Takada would not render the instant invention obvious. Both of these references fail to disclose or suggest mixtures of mono- and di- amine salts of malonic acid. For this reason, the combination does not render the claims *prima facie* obvious.

In view of the foregoing amendment and comments, applicant requests the Examiner to reconsider the rejection and now allow the claims.

Respectfully submitted,

Milton L. Honig
Registration No. 28,617
Attorney for Applicant(s)

MLH/sm
(201) 894-2403